

**IV. AMENDMENTS TO THE DRAWINGS**

- *THE DRAWINGS OF THE PATENT APPLICATION ARE HEREBY AMENDED AS SET FORTH BELOW:*
  - *No Amendment is made to the drawings*
  - *Attachments: None*

## V. REMARKS AND ARGUMENTS

- STATUS OF THE CLAIMS

Claims 1, 4, 7, 10, 13, 14 and new claims 19 and 20 are pending in this application. Independent claim 1 has been amended to include the limitations and features of original claims 2, 3 and 8. No new matter has been added.

- REJECTIONS

- REJECTION UNDER 35 U.S.C. § 112

The Examiner has rejected claims 1, 2, 5, 6, 7, 10, 14 and 15 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention.

Specifically the Examiner has objected to the following terms:

- (a) “substantially small uniform sized”;
- (b) “the nanoscale range ( $10^{-9}$  m)”;
- (c) “polarizable”; and
- (d) “compatible with petroleum-based products”.

With respect to (a), the Examiner has stated that “such term is relative, it is not clear what is small”. (See Office Action of Nov. 14, 2006, page 2). In response the Applicants have amended claim 1 to include subject matter from original and now cancelled claims 2, 3 and 8. As a result with respect to the phrase “substantially small uniform sized” there now exists a frame of reference within claim 1 relating to the particle unit size. Applicants respectfully submit that this amendment overcomes the Examiners indefiniteness rejection as to this phrase.

With respect to (b), the Examiner has stated that “there is no range listed”. (See *id.*). The Applicants have maintained phrase “the nanoscale range” in the claims and offer an explanation as to this term of art. Specifically, the Applicants submit that the term of art, “the nanoscale range”, forms part of a larger expression, namely “a dimension in the nanoscale range”. The larger expression, due to the presence of the word “nanoscale”, is reference to a general

dimension size, namely, a nanoscale size scale. For the Examiner's information the Applicants have enclosed herewith a copy of a Wikipedia encyclopedic discussion of Nanotechnology and specifically point the Examiner's attention to the first paragraph on the first page thereof. For the Examiner's further information the word "nanoscale" does appear in claim 1 of the following US patents:

- US patent no. 5590387 (nanoscale ceramic);
- US patent no. 5788738 (nanoscale powder);
- US patent no. 5905000 (nanoscale particle);
- US patent no. 6165641 (nanoscale particle size);
- US patent no. 6291070 (nanoscale inorganic particle);
- US patent no. 6316030 (nanoscale sterols); and
- US patent no. 6322713 (nanoscale conductive connectors).

The Applicants submit that term of art "the nanoscale range" is defined in the art and such definition is applicable in the instant application and is not indefinite under 35 U.S.C § 112.

With respect to (c), Applicants have amended the claims to remove the word "polarizable" in favor of the phrase "capable of being electrostatically charged". Applicants point out that support for this amendment can be found in the specification at, *inter alia*; page 6, lines 10-11.

With respect to (d) the expression "compatible with petroleum-based products", claims 6 and 15 have been deleted.

Applicants respectfully submit that the above mentioned claim amendments, in conjunction with the Applicants explanation and arguments, remove the grounds for any rejection of the claims as they now stand under 35 U.S.C. § 112.

○ REJECTION UNDER 35 U.S.C § 102

The Examiner has rejected claims 1-18 under 35 U.S.C. § 102 (b) as being anticipated by Nakanishi '666 (the "'666 Patent"), Geiser '448 (the "'448 Patent") and Ohshima '266 (the "'266 Patent"). The Examiner cites to the '266 Patent referring to the abstract, column 2, lines 1-25, column 4 lines 47-55 and generally to "Examples". With respect to the '448 Patent, the Examiner cites generally to the abstract, the figures, the summary of the invention and to column 2 bottom to column 3 lines 1 -35.

Initially, the Applicants respectfully disagree with the format with which the Examiner has made the rejection under 35 U.S.C § 102 (b). The Examiner has made general references to whole sections of the cited references and has not identified where each of the references individually teaches or discloses each and every element of Applicants claims. The Applicants respectfully submit that the Examiner has not met his burden of showing that the each and every element of Applicants invention is taught or disclosed by any one of the cited references. At least for this reason Applicants submit that rejection of the claims under 35 U.S.C § 102 (b) cannot stand and should be withdrawn.

▪ Independent Claim 1

Notwithstanding the Examiner's deficient rejection, Applicants point out that the claims as they are now amended include elements and features not taught or disclosed by any of the cited references. Specifically, claim 1 now includes a ragged edge particulate material with the following features:

- a. the particulate reusable material includes particulate units of a size ranging from 1  $\mu\text{m}$  to 3 cm.
- b. said particulate units have a dimension in the nanoscale range, and
- c. the ragged edges of said particulate units include filaments extending outwardly therefrom.

The cited references do not teach or disclose each of the elements and features of amended claim 1. As such Applicant's submit that claim 1 is patentable over the cited references and request that claim 1 be passed to issuance without delay.

▪ Dependent Claims 4, 7, 10, 13, 14, 19 and 20

Each of claims 4, 7, 10, 13, 14, 19 and 20 depend, either directly or indirectly, from claim 1. As claim 1 has been shown to be patentable over the cited art, each claim that depends from patentable claim 1 is likewise patentable over the cited art. At least for this reason the Applicants submit that claims 4, 7, 10, 13, 14, 19 and 20 are patentable and should be passed to issuance without delay.


- CONCLUSION TO REMARKS

Applicants have addressed and successfully responded to each rejection made by the Examiner and have made a bona fide attempt to advance prosecution in this application. In light of the amendments and arguments made in the Response the Applicants respectfully submit that each and every rejection has been overcome or rendered moot such that the claims are now in condition for allowance.

Should the Examiner have any questions about this Response, the claim amendments, or the arguments put forth herein, Applicants request that the Examiner telephone the undersigned attorney in an effort to further advance and efficiently prosecute this application towards issuance.

Dated: May 12, 2007

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Anthony L. Meola', is written over a horizontal line.

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**VI. APPENDIX**

- *See the attached Wikipedia Article re nanotechnology*